



## Fact Sheet

Aquifer Protection Permit 105012  
Place ID #15607, LTF # 44337  
SIGNIFICANT AMENDMENT  
City of Peoria-Quintero Wastewater  
Treatment Plant (WWTP)

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The Arizona Department of Environmental Quality (ADEQ) proposes to issue an amendment to an aquifer protection permit for the subject facility that covers the life of the facility, including operational, closure, and post closure periods unless suspended or revoked pursuant to Arizona Administrative Code (A.A.C.) R18-9-A213. This document gives pertinent information concerning the issuance of the permit. The requirements contained in this permit will allow the permittee to comply with the two key requirements of the Aquifer Protection Program: 1) meet Aquifer Water Quality Standards at the Point of Compliance; and 2) demonstrate Best Available Demonstrated Control Technology (BADCT). BADCT's purpose is to employ engineering controls, processes, operating methods or other alternatives, including site-specific characteristics (i.e., the local subsurface geology), to reduce discharge of pollutants to the greatest degree achievable before they reach the aquifer or to prevent pollutants from reaching the aquifer.

### I. FACILITY INFORMATION

#### Name and Location

Permittee's Name:	City of Peoria
Mailing Address:	8401 West Monroe Street Peoria, Arizona 85345
Facility Name and Location:	City of Peoria-Quintero WWTP 16752 West State Route 74 Peoria, AZ 85382

#### Regulatory Status

An Aquifer Protection Permit (APP) was issued on March 14, 2003. Another Amendment was issued on September 26, 2003. An application for this Significant Amendment was received on May 29, 2007.

#### Facility Description

The City of Peoria-Quintero WWTP has the capacity to collect and treat a maximum average monthly flow of .125 million gallons per day (MGD) of domestic sewage and light industrial wastewater. The WWTP consist of activated sludge for nitrification/denitrification, sand filter for filtration, chlorine contact basin for disinfection, and centrifuge for dewatering excess sludge. Effluent will be blended at

the Air Gap Box with raw Central Arizona Project (CAP) water. All effluent will be disinfected and used for beneficial purposes as regulated under a valid reclaimed water permit.

During the initial start-up period influent will be blended with routed backwash micro-filtered (reject water (15,000 gpd)) from the Water Treatment Facility (WTF) and treated at the WWTP. When the WWTP reaches full operational capacity, the reject water will be routed directly to the sand filters at the WWTP bypassing the biological treatment of the WWTP. Reject water routed directly to the filters will be disinfected and discharge to the lake. Reject water bypassing the biological treatment at the WWTP and not blended with treated effluent from the sewage system will not require a reclaimed water permit.

The WWTP is classified as producing Class B+ reclaimed water pursuant to A.A.C. R18-11, Article 3. Excess sludge will be dewatered, hauled off-site and disposed in accordance with state and federal regulations.

### **Amendment Description**

This permit amendment is to discontinue monitoring the reject water Table II (NANO-FILTRATION CHARACTERIZATION MONITORING) from the WTF, run the reject water through the WWTP, and monitor at the discharge monitoring sampling point (Table I). Delete the storage pond because the storage pond was used during construction activities or storage of CAP water, and was not a discharging facility. The storage pond was last used in 2003, and will be replaced with an Air Gap box. The monitoring of the storage pond berm is deleted because the storage pond is replaced with an Air Gap Box.

Listed below are the changes to the permit as a result of this amendment:

1. Section 1.1 – Changed the permittee name from Quintero Country Club, L.L.C. to **City of Peoria.**
2. Section 1.1 – Changed the Facility name from Quintero Wastewater Treatment Plant to **City of Peoria- Quintero Wastewater Treatment Plant.**
3. Section 2.1, Facility/Site Description: Effluent and raw CAP reject (nano filtration) water blended at a storage pond change to **effluent and treated CAP reject (micro filtration) water will be blended at the Air Gap Box.**

4. Section 2.4, Point of Compliance (POC): Change the POC from

POC	Descriptive Location	Latitude	Longitude
POC-1	Southwest corner of the effluent storage pond.	33° 52' 10" N	112° 22' 50" W

to

POC	Descriptive Location	Latitude	Longitude
POC-1	Down gradient of WWTP	33° 50' 53" N	112° 24' 37" W

5. Section 4.0, Table of Monitoring Requirements Table I Discharge Monitoring, Sampling point 1, point of discharge from the disinfection unit to the storage pond change to **Section 4.0 , 4.2 Compliance (or operational) monitoring, Table IA Routine Discharge Monitoring, sampling point 1 at the chlorine contact basin just upstream of the overflow weir.**
6. Section 4.0, Table of Monitoring Requirements Table I Discharge Monitoring, fecal coli form change to **Section 4.0, 4.2 Compliance (or operational) monitoring, Table IA Routine Discharge Monitoring, *Ecolab*.**
7. Section 4.0, Table of Monitoring Requirements Table II Nano-filtration characterization monitoring. **Delete**
8. Section 4.0, Table of Monitoring Requirements Table II Nano-filtration characterization monitoring. **Delete**
9. Section 4.0, Table of Monitoring Requirements Table III Facility Inspection (operational monitoring). **Delete berm integrity inspection.**

### **Geology**

The Quintero WWTP is located within the Basin and Range physiographic province of Arizona which is characterized by northwest trending mountain ranges separated by gently sloping alluvial valleys. The mountain ranges are generally composed of crystalline and/or citified basement rocks, where as the alluvial valleys are composed of unconsolidated to well cemented sedimentary deposits.

### **SURFACE WATER INFORMATION/ 100-YEAR FLOODPLAIN INFORMATION**

The site is outside the 100-year flood plain.

## WATERSHED AND GROUNDWATER INFORMATION

The Quintero WWTP lies within the centralized portion of the Phoenix Active Management Area (AMA), in the Middle Gila River Watershed. The depth to groundwater near the site is approximately 87 feet below ground surface. The groundwater gradient is to the southwest. The nearest registered well is located 1.1 miles to the west/southwest. The well is classified as being decommissioned. An additional well, approximately 1.15 miles southwest is classified as a drinking water well, and may be brought on-line in the future to service the surrounding water needs at or near the golf course.

### **II. BEST AVAILABLE DEMONSTRATED CONTROL TECHNOLOGY**

The WWTF is designed, constructed, operated, and maintained to meet the treatment performance criteria for new facilities as specified in Arizona Administrative Code R18-9-B204.

### **III. COMPLIANCE WITH AQUIFER WATER QUALITY STANDARDS (AWQS)**

The facility produces tertiary treated effluent with nitrogen removal, chlorine disinfection, and sand filtration. The sludge will be transported off and disposed in accordance with state and federal regulation. The facility is not expected to violate AWQS at the point of compliance because of the level of treatment and disposal of the effluent and sludge.

#### **Monitoring and Reporting Requirements**

The effluent is monitored daily for *E. coli*, monthly for nitrogen species, quarterly for metals, semi-annually for volatile organic compounds (Voss), quarterly for major Cations and Anions in accordance with Table IA, Section 4.2 of the permit. The sampling point is located at the chlorine contact basin just upstream of the overflow weir.

The groundwater monitoring is not required at this time.

Point of Compliance (POC)

The Points of Compliance is established at this location:

POC #	Descriptive Location	Latitude	Longitude
1	Down gradient of the WWTP	33° 50' 53" N	112° 24' 37" W

Groundwater monitoring is not required at the time of permit issuance.

**IV. STORM WATER AND SURFACE WATER CONSIDERATIONS**

There are no storm/surface water considerations required for this facility.

**V. OTHER REQUIREMENTS FOR ISSUING THIS PERMIT**

**Technical Capability**

The applicant has demonstrated the technical competence necessary to carry out the terms and conditions of the permit in accordance with A.R.S. § 49-243(N) and A.A.C. R18-9-A202 (B).

**Financial Capability**

City of Peoria has demonstrated the financial responsibility necessary to carry out the terms and conditions of the permit in accordance with A.R.S. § 49-243(N) and A.A.C. R18-9-A203. The permittee is expected to maintain financial; capability throughout the life of the facility.

The permittee submitted a closure cost estimate of \$250,000.00. The permittee provided a statement on its letterhead, according to rule R18-9-A203 (B) (1), to demonstrate financial capability.

**Zoning Requirements**

The WWTF has been properly zoned for the permitted use and the permittee has complied with all Maricopa zoning ordinances in accordance with A.R.S. § 49-243(O) and A.A.C. R18-9-A201 (B) (3).

**VII. ADMINISTRATIVE INFORMATION**

**Public Notice (A.A.C. R18-9-108(A))**

The public notice is the vehicle for informing all interested parties and members of the general public of the contents of a draft permit or other significant action with respect to a permit or application. The basic intent of this requirement is to ensure that all interested parties have an opportunity to comment on significant actions of the

permitting agency with respect to a permit application or permit. This permit will be public noticed in a local newspaper prior to the Department making a final permit decision.

**Public Comment Period (A.A.C. R18-9-109(A))**

The aquifer protection program rules require that permits be public noticed in a newspaper of general circulation within the area affected by the facility or activity and provide a minimum of 30 calendar days for interested parties to respond in writing to ADEQ. After the closing of the public comment period, ADEQ is required to respond to all significant comments at the time a final permit decision is reached or at the same time a final permit is actually issued.

**Public Hearing (A.A.C R18-9-109(B))**

A public hearing may be requested in writing by any interested party. The request should state the nature of the issues proposed to be raised during the hearing. A public hearing will be held if the Director determines there is a significant amount of interest expressed during the 30-day public comment period, or if significant new issues arise that were not considered during the permitting process.

**VIII. ADDITIONAL INFORMATION**

Additional information relating to this proposed permit may be obtained from:

Arizona Department of Environmental Quality  
Water Quality Division – APP & Reuse Unit  
Attn: Taly Gilama  
1110 W. Washington St., Mail Code 5415B-3  
Phoenix, Arizona 85007  
Phone: (602) 771- 4695